DERYABIN, I.M., inzh.

Construction of schoolhouses. Biul. tekh. inform. po stroi. 5 no.6:29 Je '59. (MIRA 12:10)
(Leningrad--Schoolhouses)

TRUNIN, A.P., kand. tekhn. nauk; DERYABIN, I.M., inzh.; BESPALOV, I.V., inzh.; VOSKANYAN, V.A., inzh., nauchnyy red.; KAPLAN, M.Ya., red.; VOLCHOK, K.M., tekhn. red.; PUL'KINA, Ye.A., tekhn. red.

[Engineering preparation for large-element construction; from the experience of Leningrad construction projects] Inzhenernaia podgotovka krupnoelementnoi zastroiki; iz opyta leningradskikh stroek. Leningrad, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 171 p. (MIRA 14:7)
(Building sites) (Leningrad--Building)

DERYABIN, Ivan Makedonovich; KARPOV, V.V., kand. tekhn. nauuk, nauchnyy red.; DNEPROVA, N.N., red. izd-va; CHERKASSKAYA, F.T., tekhn. red.

[Planning the organization of construction; practices of the Main Administration for Housing and Public Construction in the City of Leningrad] Proektirovanie organizatsii stroitel'stva; iz opyta Glavleningradstroia. Leningrad, Gosstroiizdat, 1962. 67 p. (MIRA 15:7)
(Construction industry--Production methods)

GRIGOR'YEV, Ye.G.; SATIN, M.S.; DERYABIN, I.M.; IVANOV, A.K., inzh., nauchnyy red.; DNEPROVA, N.N., red. izd-va; PUL'KINA, Ye.A., tekhn. red.

[Residential buildings made of air-entrained concrete] Zhilye doma iz gazobetona; opyt Leningrada. Leningrad, Gosstroiizdat, 1962. 130 p. (MIRA 15:10)
(Leningrad--Apartment houses)
(Lightweight concrete)

ZDANOVSKIY, A.B.; DERYABINA, L.D.

Heats of mixing of electrolyte solutions. Part 2. Zhur. fiz. khim., 39 no.4:921-925 Ap '65. (MIRA 19:1)

1. Kazanskiy gosudarstvennyy universitet imeni Ul'yanova-Lenina. Submitted Nov.22, 1963.

DERYABIN, L.I., inzh.; FILIPPOVA, L.S., red.; DROZDOVA, N.D., tekhn. red.

[Improvement of the operation of traction motors in the electrical system of an a.c. locomotive] Uluchshenie raboty tiagovykh dvigatelei v skheme elektrovoza postoiannogo toka. Moskva, Transzheldorizdat, 1962. 18 p. (MIRA 16:5)
(Electric locomotives) (Electric railway motors)

DERYABIN, L.N.

Method of determining blood pressure in dogs in a chronic experiment.
Mat. po evol. fiziol. 3:192-198 '58. (MIRA 12:4)
(BLOOD PRESSURE)

AUTHOR: Deryabin, L. N. SOV/20-121-5-46/50

TITLE: The Influence of Somnolence and Sleep Upon the Inotropic and Chronotropic Component of Cardiac Activity in Dogs (Vliyaniye dremotnogo i sonnogo sostoyaniya na inotropnyy i khronotropnyy komponenty serdechnoy deyatel'nosti sobak)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 121, Nr 5, pp. 936-939 (USSR)

ABSTRACT: When human beings become somnolent the pressure within the arteries (Refs 15, 18), the pulse rate, and the pulse pressure (Ref 3) are reduced. The author attempted to determine the intensity and the rate of the cardiac activity with dogs in the above mentioned states under normal conditions. The experiments were carried out by use of the apparatus mentioned in reference 5. Hereby a bloodless sphygmography is possible. The 150 experiments carried out on 6 dogs showed that already without sleep only in a state of quiet rest the following quantities decrease: a) the frequency of the heart contractions and b) the maximum final intra-arterial pressure(konechnoye maksimal'noye vnutriarterial'noye davleniye). This is demonstrated by figure 1. Further experiments showed that the said modifications of

Card 1/3

the activity of the heart may last for a longer period (Table 1). During night-sleep the two mentioned values undergo a stronger decrease than during day-sleep (Fig 3). It is demonstrated by the results of the experiments that the state of either somnolence or sleep of dogs is accompanied by modifications of the phases regarding the intensity and frequency of the heart contractions. The awakening again causes an increase of these quantities. Taken as a whole the curves of the said modifications correspond with the analoguous curves of the blood pressure (Ref 15), as well as with the curves of the oxygen content in the arterial blood. This does not only allude to the mutuality of the mechanisms of adaptation-trophic influences upon the heart of human beings and higher vertebrates but also to the fact that these influences constitute a partial manifestation of the trophic processes of the organism and depend on the functional state of the cerebral cortex. The dependence of the intensity and frequency of the heart contractions on the above mentioned state indicates, that the adaptation-trophic functions of the vegetative heart innervation guarantee an adequate reaction of the animal against influences of factors not only

The Influence of Somnolence and Sleep Upon the Inotropic and Chronotropic Component of Cardiac Activity in Dogs

of the inner medium but also of the environments. There are 3 figures, 1 table, and 18 references, 16 of which are Soviet.

ASSOCIATION: Institut evolyutsionnoy fiziologii im. I. M. Sechenova Akademii nauk SSSR (Institute for Evolutionary Physiology imeni I. M. Sechenov, AS USSR)

PRESENTED: April 7, 1958, by L. A. Orbeli, Member, Academy of Sciences, USSR

SUBMITTED: April 2, 1958

DERYABIN, L.N.

Sphygmography and determination of blood pressure in the central artery of the tail in dogs. Fiziol.zhur. 45 no.9:1155-1156 S '59.
(MIRA 13:1)

1. Institut evolyutsionnoy fiziologii im. I.M. Sechenova AN SSSR, Leningrad.

(BLOOD PRESSURE)

DERYABIN, I.N.

Inotropic and chronotropic components of cardiac activity in dogs at complete rest. Biul. eksp. biol. i med. 47 no.4:21-24 Ap '59.
(MIRA 12:7)

1. Iz Instituta evolyutsionnoy fiziologii imeni I.M. Sechenova (dir. - akademik L.A. Orbeli [deceased]) AN SSSR, Leningrad. Predstavlena akademikom L.A. Orbeli [deceased].

(REST, eff.
on heart in dogs, inotropic & chronotropic aspects (Rus))
(HEART, physiol.
eff. of rest in dogs, inotropic & chronotropic aspects (Rus))

DERYABIN, L.N.

Effect of a compression method on the extent of terminal maximum intra-arterial pressure. Biul.eksp.biol. i med. 48 no.7:113-115 Jl '59. (MIRA 12:10)

1. Iz Instituta evolyutsionnoy fiziologii imeni I.M.Sechenova (dir. - akademik L.A.Orbeli [deceased] AN SSSR, Leningrad. Predstavlena akademikom L.A.Orbeli [deceased].
(BLOOD PRESSURE)

DERYABIN, V.S.; DERYABIN, L.N.; KASHKAY, M.-Dzh.

Effect of acetylcholine on muscles of the hind leg of a dog following hemisection of the spinal cord. Fiziol. zhur. 46 no.12:1471-1475 D '60. (MIRA 14:1)

1. Institut evolyutsionnoy fiziologii AN SSSR im. I.M.Sechenova, Leningrad.

(ACETYLCHOLINE) (SPINAL CORD)
(EXTREMITIES, LOWER)

DERYABIN, L. N.

Cand Med Sci - (diss) "Adaptational-trophic effects on the heart of the dog under natural conditions." Leningrad, 1961. 16 pp; (First Leningrad Med Inst imeni I. P. Pavlov); 320 copies; free; (KL, 6-61 sup, 237)

GORODOV, G.M.; DERYABIN, L.N.

Hardening rods on a sinking mill. Sbor.rats.predl.vnedr.v proizv. no.5:30 '60. (MIRA 14:8)
(Rolling (Metalwork)) (Metals—Hardening)

DERYABIN, L.N.

Indirect registration of median intra-arterial pressure in a moving man. Fiziol. zhur. 46 no.3:352-356 Mr '60. (MIRA 14:7)

1. From the I.M.Sechenov Institute of Evolutional Physiology of the U.S.S.R., Academy of Sciences, Leningrad.
(BLOOD PRESSURE) (MANOMETER)

DERYABIN, L.N.

Receptive field of the stepping reflex in dogs with transected spinal cord. Fiziol.zhur. 47 no.8:1040-1-45 Ag '61. (MIRA 14:8)

1. From the I.M.Sechenov Institute of Evolutionary Physiology, Leningrad.
(SPINAL CORD) (REFLEXES) (WALKING)

MONAKHOV, N.I., otv. za vypusk; DERYABIN, N.I., inzh., red.; TYUREMNOV, I.S., inzh., red.; KLIMOVA, G.D., red. izd-va; NAUMOVA, G.D., tekhn. red.

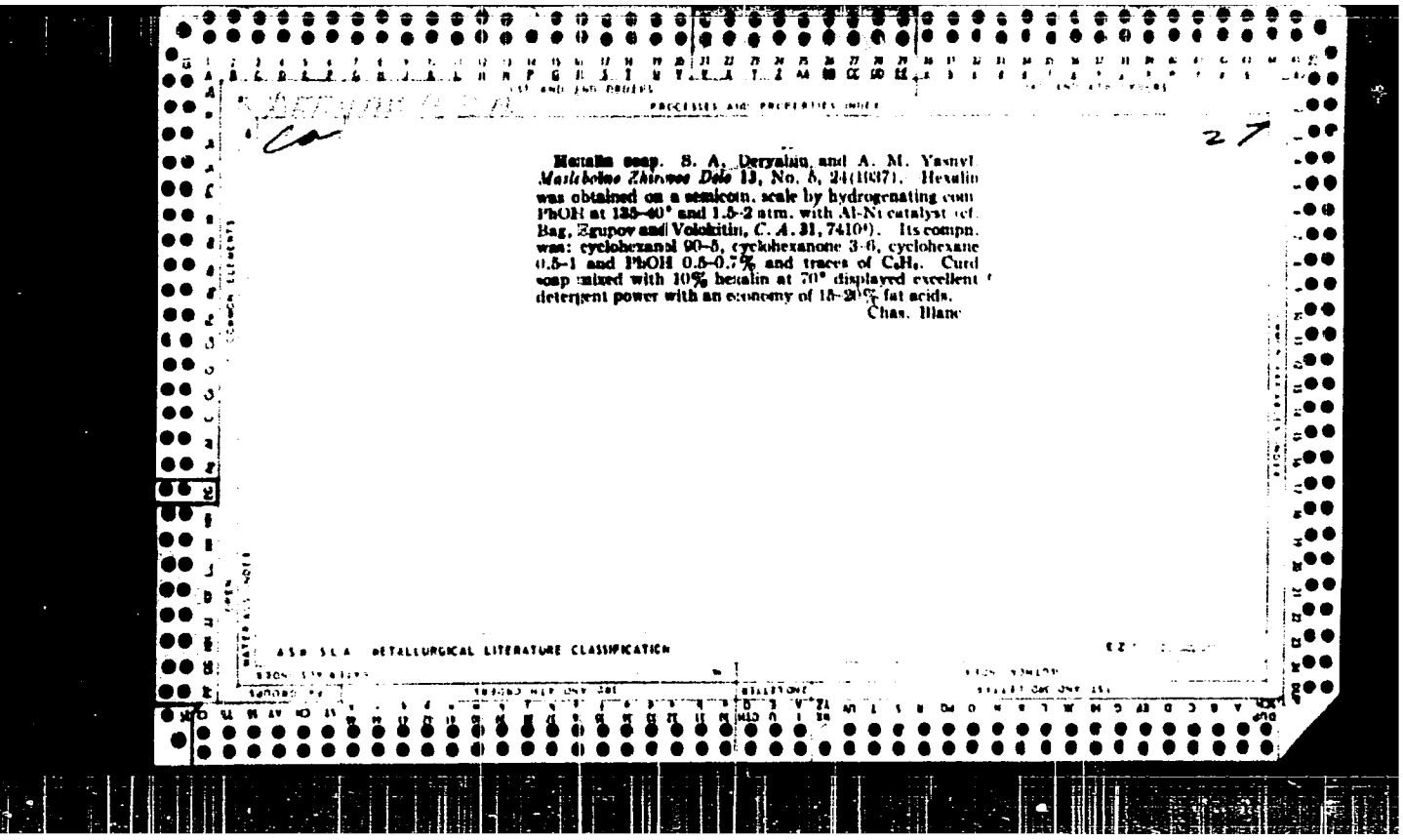
[Collection No.4 of consolidated indicies of the cost of water supply structures for revaluations capital assets] Sbornik no.4. ukrupnennykh pokazatelei stoimosti vodokhoziaistvennykh sooruzhenii dlia pereotsenki osnovnykh fondov. Utverzhden Gosudarstvennym komitetom Soveta Ministrov SSSR po delam stroitel'stva 11 ianvaria 1961 g. Moskva, Gos. izd-vo lit-ry po delam stroit., arkhit. i stroit. materialam, 1961. 223 p. (MIRA 14:9)

1. Russia (1923- U.S.S.R.) Gosudarstvennyi komitet po delam stroitel'stva.

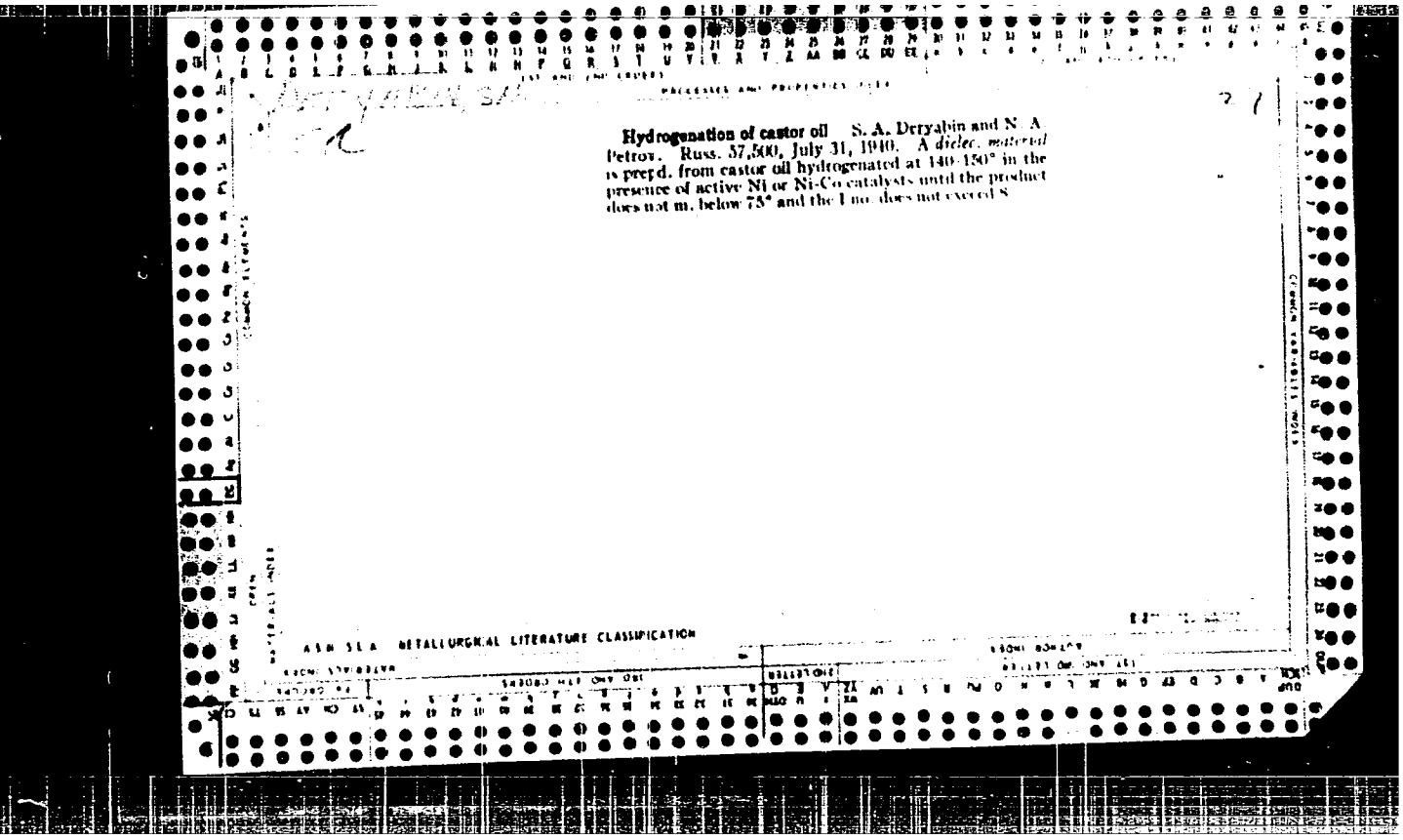
(Water supply engineering)

LASTOVTSEV, A.M.; PERYABIN, N.I.

Experimental determining of the dimensions of the torches of rotating atomizers in quiescent and moving gases. Trudy MIKHM 26:113-130 '64. (MIRA 18:5)



Hexalin soap. S. A. Deryagin and A. M. Yasnyi *Maslobino Zhirovoe Delo* 13, No. 5, 24(1937). Hexalin was obtained on a semicom. scale by hydrogenating com PhOH at 135–40° and 1.5–2 atm. with Al-Ni catalyst (cf. Bag, Zgupov and Volokitin, *C. A.* 31, 7410⁶). Its compn. was: cyclohexanol 90–5, cyclohexanone 3–6, cyclohexane 0.5–1 and PhOH 0.5–0.7% and traces of C_6H_6. Curd soap mixed with 10% hexalin at 70° displayed excellent detergent power with an economy of 15–20% fat acids.
Chas. Blanc



Hydrogenation of castor oil S. A. Deryabin and N. A. Petrov. Russ. 57,500, July 31, 1940. A *diclec. material* is prep'd. from castor oil hydrogenated at 140-150° in the presence of active Ni or Ni-Co catalysts until the product does not m. below 75° and the I no. does not exceed 8

ASM SLA METALLURGICAL LITERATURE CLASSIFICATION

DERYABIN, S.A.

Determination of the air content in margarine, shortening, etc. Patent U.S.S.R. 77,780, Dec. 31, 1949.
(CA 47 no.19:10150 '53)

DERYABIN, S.A., inzhener.

Automatic control of industrial extraction processes. Masl.-zhir. prom 22 no.8:7-11 '56. (MLRA 10:1)

1. Giprozhir.
(Automatic control) (Oil industries--Equipment and supplies)

DERYABIN, S.A., inzhener; ZUBOV, I.I., inzhener; DMITRIYEVSKAYA, M.V., inzhener.

Continuous hydrogenation of vegetable oils in column apparatus under pressure. Masl.-zhir.prom. 23 no.6:22-25 '57. (MLRA 10:7)

1. Giprozhir (for Deryabin). 2. Zavod "Steol" (for Zubov and Dmitriyevskaya).
(Hydrogenation) (Oils and fats)

DERYABIN, V.; MUSAYEV, T., nauchnyy sotrudnik; SULEYMANOV, I., nauchnyy sotrudnik

Preparations against suctorial pests of cotton. Zashch. rast. ot vred. i bol 10 no.9:25-26 '65. (MIRA 18:11)

1. Samarkandskaya sel'skokhozyaystvennaya opytnaya stantsiya. 2. Zaveduyushchiy otdelom zashchity rasteniy Samarkandskoy sel'skokhozyaystvennoy opytnoy stantsii (for Musayev, Suleymanov).

PRASYNYUK, A., komandir podrazdeleniya (Simferopol'); DERYABIN, V., inzh. po spetsprimeneniyu aviatsii (Simferopol')

A good harvest, high profits. Grazhd. av. 22 no.12:9 D '65.
(MIRA 18:12)

DERYABIN, V.A.

From Pyatigorsk to Khosta. Zdorov'e 1 no.6:16-17 Je. '55. (MLRA 9:5)

(CAUCASUS, NORTHERN--DESCRIPTION AND TRAVEL)

DERYABIN, V.A.

On foot under the clouds. Zdorov'e 5 no.6:16-17 Je '59.
(MIRA 12:11)
(GEORGIA--MOUNTAINEERING)

USSR / General and Specialized Zoology. Insects. Harmful Insects and Acarids. Pests of the Technical, Oil, Medicinal and Essential-Oil Cultures. P

Abs Jour : Ref Zhur - Biol., No 18, 1958, No. 82981

Author : Deryabin, V. I.
Inst : Not given
Title : Albichtol Paste in the Struggle Against the Aphid and the Thrips on the Cotton Plant

Orig Pub : Sots. s. kh. Uzbekistana, 1957, No 3, 30-31

Abstract : Into the Albichtol paste (I), at factory production, 20% of BHC was introduced. With an 0.7-0.8% I emulsion and the addition of 0.2% of household soap, 1750 hectares were sprinkled by the tractor sprayer OUN-4. The mortality rate of the aphid and thrips reached 83-100% in 12-14 hours after spraying. To prevent burns, it is necessary to spray the cotton plant before the formation of the sixth

Card 1/2

DERYABIN, V. I.

USSR / General and Specialized Zoology. Insects. P
Insect and Mite Pests.

Abs Jour : Ref Zhur - Biol., No 10, 1958, No 44809

Author : Deryabin, V.
Inst : Not given
Title : The Use of Mercaptophos on Cotton.

Orig Pub : Khlopkovodstvo, 1957, No. 4, 63.

Abstract : The spider mite injured 93.7% of cotton leaves in July. 3-4 days after the spraying of cotton by means of a OUN-4 plane with a mercaptophos emulsion (less than 300 litres per hectare) all the mites were destroyed; for 1 month not one mite was found on the leaves. The yield from 77 hectares of the treated area was 46 centners/ha as compared to 41 c/ha in the sections where only half of the area was treated. -- A. P. Adrianov.

Card 1/1

DERYABIN, V.I.; ZVEREV, A.M.; LYSIKOV, V.P.; UDARTSEV, Ye.P.

Building of a 47-ton displacement cruising yacht.
Sudostroenie 26 no.6:37-38 Je '60. (MIRA 13:7)
(Yacht building)

GOLOVANOVA, E.N., kand.biolog.nauk; DANILOV, V.I.; PITERSKAYA, A.M.; DERYABIN, V.I., nauchnyy sotrudnik; BALAYAN, L.N., nauchnyy sotrudnik; BURDA, Yu.N., nauchnyy sotrudnik

Controlling sparrows. Zashch. rast. ot vred. i bol. 8 no.9: 19-20 S '63. (MIRA 16:10)

1. Samarkandskaya oblastnaya sel'skokhozyaystvennaya opytnaya stantsiya (for Deryabin, Balayan, Burda).

SERGEYEV, N.; RIDER, V.A.; ORIPOV, Kh.; BRUNNER, Yu.N.; MANGUSH, Kh.; ORLOVA, A.S.; SHCHERBAKOVSKIY, N.N.; LESHCHINSKIY, N.S.; VOYAKOVSKAYA, Ye.S.; DERYABIN, V.I.

Letters to the editor. Zashch. rast. ot vred. i bol. 6 no.5:44-45 My '61. (MIRA 15:6)

1. Inspektor po karantinu rasteniy g.Labinsk, Krasnodarskogo kraya (for Sergeyev). 2. Zaveduyushchiy Primorskim gosudarstvennym sortoispytatel'skim uchastkom Stalinskoy oblasti (for Mangush). 3. Agronom po zashchite rasteniy Shchelkovskogo rayona, Moskovskoy obl. (for Orlova). 4. Zaveduyushchiy Aleksandrovskim nablyudatel'nym punktom, Kirovogradskaya obl. (for Shcherbakovskiy). 5. Inspektor po karantinu rasteniy, g. Pyatigorsk, Stavropol'skogo kraya (for Leshchinskiy). 6. Agronom po zashchite rasteniy g. Kamenets-Podol'skiy, Khmel'nitskoy oblasti (for Voyakovskaya).

(Plants, Protection of)

RUSIASHVILI, I.L. (Telavi); GOGUADZE, M.N. (Telavi); MAMALADZE, L.T. (Telavi); DERYABIN, V.I., nauchnyy sotrudnik; BALAYAN, L.N., nauchnyy sotrudnik

Testing preparations against the spider mite. Zashch.rast.ot vred.i bol. 7 no.5:36 My '62. (MIRA 15:11)

1. Samarkandskaya sel'skokhozyaystvennaya opytnaya stantsiya (for Deryabin, Balayan).
(Red spider--Extermination)

DERYABIN, V.I.

Sayfos against aphids. Zashch. rast. ot vred. i bol. 9 no.2: 29 '64. (MIRA 17:6)

1. Zaveduyushchiy otdelom zashchity rasteniy Samarkandskoy opytnoy stantsii.

MARKOSYAN, A.A.; MARDZHANYAN, G.M., kand. biolog. nauk; KARYAN, A.A., aspirant; SHARAFUTDINOV, Sh.A.; RASULOV, F.K.; SVANIDZE, N.V., starshiy nauchnyy sotrudnik ; RABINOVICH, I.M., starshiy nauchnyy sotrudnik; DERYABIN, V.I.; SULEYMANOV, I., mladshiy nauchnyy sotrudnik; SHEVTSOV, S.I., starshiy nauchnyy sotrudnik (TSelinnyy kray)

From the practices in the use of poisonous chemicals. Zashch. rast. ot vred. i bol. 9 no.9:21-23 '64. (MIRA 17:11)

1. Armyanskiy institut zemledeliya (for Markosyan, Mardzhanyan, Karyan). 2. Sredneaziatskiy institut zashchity rasteniy (for Sharafutdinov, Rasulov). 3. Zakavkazskaya opytnaya stantsiya Vsesoyuznogo nauchno-issledovatel'skogo instituta lekarstvennykh i aromaticheskikh rasteniy (for Svanidze, Rabinovich). 4. Zaveduyushchiy otdelom zashchity rasteniy Samarkandskoy opytnoy stantsii (for Deryabin). 5. Samarkandskaya opytnaya stantsiya (for Suleymanov).

DERYABIN, V.I.

Effect of vegetable toxins on the fecundity of cotton and cutworm moths. Uzb. biol. zhur. 9 no.5:72-73 '65. (MIRA 18:10)

1. Samarkandskaya oblastnaya opytnaya stantsiya i Vsesoyuznyy nauchno-issledovatel'skiy institut khlopkovodstva, Tashkent.

L 00731-67 EWT(m)/T/EWP(t)/ETI IJP(c) JD

ACC NR: AP5025819 (N) SOURCE CODE: UR/0314/66/000/005/0012/0014

AUTHOR: Kolgatin, N. N. (Candidate of Technical Sciences); Teodorovich, V. P. (Candidate of Chemical Sciences); Deryabina, V. I. (Engr.)

ORG: none

TITLE: Effect of hydrogen on clad steels

SOURCE: Khimicheskoye i neftyanoye mashinostroyeniye, no. 5, 1966, 12-14

TOPIC TAGS: hydrogen, metal cladding, stainless steel, corrosion

ABSTRACT: Hydrogen corrosion was studied on tubular specimens of 20 carbon steel clad from within with 1Kh18N9T stainless steel, and on flat specimens of St. 3+0Kh13 and 12MKh+0Kh13 clad steels. Hydrogen was forced into the tubular specimens up to a pressure of 50 kg/cm^2, and after being sealed, the specimens were kept for 4500 hr at 530°C. The flat specimens were kept in an autoclave at the same hydrogen pressure for 4000 hr at 450-500°C and for 1000 hr at 530°C. In the tubular specimens, a pressure of 5.6 kg/cm^2 was found to arise between the two layers. Clad 20 steel did not show any corrosion. In the flat specimens, the base layer of St. 3 showed considerable corrosion, but the base layer of 12MKh steel did not. It is concluded that 12MKh+1Kh18N9T clad steel with a proper ratio of the thicknesses of the base and clad layers can be used for building equipment employed in processes of hydrodesulfurization and catalytic re-

Card 1/2 UDC: 621.9-119:620.193.55.001.5

L 00731-67
ACC NR: AP6025819

forming of petroleum products at pressures of hydrogen-containing sulfur up to 50 kg/cm^2 and temperatures up to 530°C. Orig. art. has: 3 figures and 1 table.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 002/ OTH REF: 002

Card 2/2

DERYABIN, V.M. (g. Tobol'sk); BORISOVA, T.S. (g. Tobol'sk).

From the experience of scientific and atheistic education in classroom instruction. Fiz.v shkole 16 no.5:71-73 S-O '56. (MLRA 9:11)
(Physics--Study and teaching)
(Atheism-- Study and teaching)

DERYABIN, V. M. (Tobol'sk)

Teaching the unit systems. Fiz. v shkole 22 no.4:82-85 Jl-Ag '62. (MIRA 15:10)

(Units)

DERYABIN, Viktor Mikhaylovich; OHMENINA, V.A., red.; MAKAROVA, N.F., tekhn.red.

[International system of units in a secondary school physics course] Mezhdunarodnaia sistema edinits v kurse fiziki srednei shkoly. Moskva, Uchpedgiz, 1963. 109 p. (MIRA 17:2)

IVANOV, S.I. (Moskva); DERYABIN, V.M. (Tobol'sk)

Interrelation of mathematics and physics in operations with denominate numbers. Mat. v shkole no.5:48-50 S-O '63.
(MIRA 16:11)

DERYABIN, V.P.
Moscow State U imeni M. V. Lomonosov

DERYABIN, V. P.-"Investigation of the thermal properties of the upper layers of soil and some problems of the theory of the distribution of heat in the soil." Moscow State U imeni M. V. Lomonosov. Moscow, 1956.
(Dissertation for the Degree of Candidate of Physicomathematical Science)

SO: Knizhnaya Letopis' No. 13, 1956

DERYABIN, V.P.

Effect of drying on the thermal conditions of soil. Izv.AN SSSR. Ser.geofiz. no.9:1099-1106 S '56. (MLRA 9:12)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova, Fizicheskiy fakul'tet.
(Soil temperature) (Soil moisture)

DERYABIN, V.P.

Uses of a spherical, constant heat source for determining the thermal conductivity of soil under natural conditions. Vest. Mosk. un. Ser. mat., mekh., astron., fiz. khim. 12 no.5:87-96 '57. (MIRA 11:9)

1.Kafedra fiziki atmosfery Moskovskogo gosudarstvennogo universiteta.
(Soil physics)

DERYABIN, V.P.

Device for rewinding drilling cables. Sbor.rats.predl.vnedr.v proizv. no.5:9 '60. (MIRA 14:8)

1. Nizhne-Tagil'skiy metallurgicheskiy kombinat, Vysokogorskoye rudoupravleniye.

(Winding machines)

DERYABIN, V. S.

"Concerning Bulbocapnine Catalepsy," Trudy Inst. Evolut. Fiz. i Patol. Vys. Nerv. Dey. im. Pavlov, No 1, pp 325-333, 1947

Translation M-243, 7 Mar 55

DERYABIN, V.S.

Experimental catatonia in dogs produced by bulbocapnine. Zh. vysshei nerv. deiat. Pavlova 1 no.4:469-478 July-Aug 1951. (CLML 23:2)

1. Leningrad.

DERYABIN, V.S.

Affectivity and mechanism of the higher nervous function. Zh. vysshei nerv. deiat. 1 no. 6:889-901 Nov-Dec 1951. (CLML 23:3)

1. Leningrad.

DERYABIN, V.S.

Pathways of the development of Pavlov's theory on the higher nervous function. Fiziol.zh.SSSR 37 no.2:140-144 Mar-Apr 51.(CLML 21:1)

1. Leningrad.

DERYABIN, V.S.

Effect of acetylcholine on pacing movements of hind legs in dogs. Fiziol. zh. SSSR 39 no.3:319-323 May-June 1953. (CIML 25:1)

1. Institute of Physiology imeni I. P. Pavlov of the Academy of Sciences USSR.

DERYABIN, V.S.; DERYABIN, L.N.; KASHKAY, M.-Dzh.

Effect of acetylcholine on muscles of the hind leg of a dog following hemisection of the spinal cord. Fiziol. zhur. 46 no.12:1471-1475 D '60. (MIRA 14:1)

1. Institut evolyutsionnoy fiziologii AN SSSR im. I.M.Sechenova, Leningrad.

(ACETYLCHOLINE) (SPINAL CORD)
(EXTREMITIES, LOWER)

DERYABIN, V.V., tekhnik.

Mirror reflecting surfaces for illuminating metal-inspection working areas. Ozdor.usl.trud.na zav. no.6:58-62 '56. (MLRA 9:11)
(Factories--Lighting)

AUTHOR: Deryabin, V.V. and Perretts, V.B. 133-5-13/27

TITLE: Illumination of dressing shops for rolled products. (Osveshcheniye otdeleniy zachistki prokata)

PERIODICAL: "Stal'" (Steel) 1957, pp. 436-437 (U.S.S.R.)

ABSTRACT: Improvements required in the electrical illumination of the dressing shops for finished rolled products are discussed. Required standards of illumination for various kinds of dressing work are given in a table. There is 1 table and 2 figures.

ASSOCIATION: VNIIOT

AVAILABLE:

Card 1/1

DERYABIN, V.V.; PERETTS, V.B.

Lighting of rolling mill finishing departments. Stal' 17 no.5:436-437 My '57. (MIRA 10:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut okhrany truda im. S.M. Kirova.

(Rolling mills) (Factories--Lighting)

DERYABIN, Ye.

Gold medals have been awarded for students' research. Avt. dor. 23 no.5:31 My'60. (MIRA 13:10)
(Rewards, prizes, etc.)

DERYABIN, Ye.Ya., inzh.

Periods of the summer road construction season for basic road construction in the Ukrainian S.S.R. and in the Moldavian S.S.R. Avt.dor.i dor.stroi. no.1:206-219 '65. (MIRA 18:11)

SUSHIL'NIKOV, S.I.; PONOMARENKO, A.G.; DERYABIN, Yu.A.; PAVLOV, V.A.

Reduction of iron oxides from ilmenite concentrates by solid carbon. Report No.1. Izv.vys.ucheb.zav.; chern.met. 8 no.6:10-15 '65. (MIRA 18:8)

1. Ural'skiy politekhnicheskiy institut.

[illegible] D.T.; EFRYAPIN, Yu.A.; [illegible]EV, V.P.

Oxygen compounds with chromium during the smelting of certain chromium alloys. Izv. vys. ucheb. zav.; chern. met. 8 no.8:55-56 '65. (MIRA 18:9)

1. Ural'skiy politekhnicheskiy institut [illegible] [illegible].

DERYABINA, A. (g.Voronezh)

Sanatorium without a master. Okhr.truda i sots.strakh. 4 no.11: 24 N '61. (MIRA 14:12)

(Sanatoriums)

DERYABINA, A.I.; LADYGIN, G.M.; KLEBANOV, M.K., red.; ANTONOV, V.P., tekhn.red.

[Textbook on descriptive geometry] Uchebno-metodicheskoe posobie po nachertatel'noi geometrii. Sost.A.I.Deriabina i G.M.Ladygin. Kuibyshev, 1958. 117 p. (MIRA 13:9)

1. Kuybyshev. Industrial'nyy institut.
(Geometry, Descriptive)

USSR/Medicine - Animals - Diseases
Medicine - Veterinary Medicine

Jan 1948

"Application of Sulfantrol (C-55) in Paratyphoid Articular Fracture in Stallions," A. V. Deryabina, Vet; G. T. Shabrov, Vet, Chair of Epizootology, Chkalov Agr Inst imeni A. A. Andreyev, 1 p

"Veter" No 1

Experiments show that sulfantrol is five times more effective than other types of chemical preparations. However, it is effective only if administered per os. Intravenous injection of a 4% solution did not show results.

61T57

1. DERYABINA, A. Ye.

2. USSR (600)

4. Power Presses

7. Attachment for a soap cold press for air exhaust. Masl. zhir. prom. 17, no. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

DERYABINA, A.Ye., inzhener.

Rationalization of the process of feeding hydrogen peroxide into soap kettles for bleaching. Masl.-zhir.prom. 19 no.5:34 '54. (MLRA 7:9)

1. Zavod "Novyy mylovar".
(Soap industry)

DERYABINA, A. Ye.

BAYKOV, S.F., inzhener; DERYABINA, A.Ye.

Use of the Model 4004-A power truck in the "Novyi mylovar" Plant. Masl.-zhir.prom. 20 no.1:31-32 '55. (MLRA 8:3)

1. Zavod "Novyy mylovar".
(Fork-lift trucks)

BESPYATOV, M.P., kand.tekhn.nauk; BAYKOV, S.F.; MAGNITSKIY, L.A., inzh.; DERYABINA, A.Ye., inzh.; SHMIDT, A.A., kand.tekhn.nauk; BELYAYEV, I.P., inzh.

Operational experience with the TNB-2 unit. Masl.-zhir.prom. 25 no.1:39-41 '59. (MIRA 12:1)

1. Khar'kovskiy politekhnicheskiy institut im. V.I.Lenina (for Bespyatov) 2. Moskovskiy zavod "Novyy mylovar" (for Baykov, Magnitskiy, Deryabina). 3. TSentral'naya nauchno-issledovatel'skaya laboratoriya Upravleniya meditsinskoy i parfyumernoy promyshlennosti Mosgorsovnarkhoza (for Shmidt, Belyayev). (Moscow--Oil industries--Equipment and supplies) (Saponification)

DERYABINA, A.Ye., inzh.; YELKINA, L.G., inzh.

Utilization of soap alkali wastes in the national economy. Masl.-zhir. prom. 29 no.3:37-38 Mr '63. (MIRA 16:4)

1. Moskovskiy zavod "Novyy mylovar".
(Soap industry—By-products)

DERYAGIN, Boris Vladimirovich; BERKOVICH, D.M., red.izd-va; SIMKINA, G.S., tekhn. red.

[What is friction?] Chto takoe trenie? Izd.2., perer. i dop. Moskva, Izd-vo Akad.nauk SSSR. 1963. 229 p. (MIRA 16:7)
(Friction)

USSR / Microbiology - Microorganisms Pathogenic to Humans and Animals. F-4

Abs Jour: Ref Zhur-Biol., No 9, 1958, 38435.

Author : Deryabina, E.
Inst : Not given.
Title : Capsulated Bacteria of the Upper Mucus Respiratory Passages.

Orig Pub: Sb. nauchn. rabot stud. Tashkentsk. med. in-ta. Tashkent, AN UzSSR, 1956, 75-78.

Abstract: A study was conducted on 42 strains of capsulated bacteria, 34 of which were isolated from the mucus membrane and the sputum of patients suffering from pneumonia, chronic rhinitis, diphtheria, and tuber-

Card 1/3

USSR / Microbiology - Microorganisms Pathogenic to Humans and Animals. F-4

Abs Jour: Ref Zhur-Biol., No 9, 1958, 38435.

Abstract: culosis, three from bile and five from cracks on nipples of suckling mothers. According to Elbert's classification, these strains can be regarded as of the following types: Bacterium lactis aerogenes --19 strains, Bact. pneumoniae Fridlanderi--18 strains, Bact. rhinoscleromatis--5 strains. When these strains were stored at room temperature, some lost their capacity to form gas on media with various carbohydrates. This capacity is restored after passage through mice. The colony structures also altered from one transfer to another. The author assumes that capsulated bacteria, having much in common with Aerobacter aerogenes, are difficult to subdivide into separate species, because they lack stable properties. The investigated

Card 2/3

USSR / Microbiology - Microorganisms Pathogenic to Humans and Animals. P-4

Abs Jour: Ref Zhur-Biol., No 9, 1958, 38435.

Abstract: strains easily altered their morphological, cultural, biochemical properties and cirulence as influenced by the surrounding medium; therefore, the Elbert classification has no practical significance.

Card 3/3

ZOGRAFOV, Daniil Vasil'yevich; STEPANOV, V.N., doktor geogr. nauk, retsenzent; DERYABINA, E.A., retsenzent; KIKOIN, Ye.K., metodist, retsenzent; VASIL'YEVA, O.S., red.

[Stories about the world ocean; a reader. Textbook for teachers] Rasskazy o mirovom okeane; khrestomatiia. Posobie dlia uchitelia. Moskva, Uchpedgiz, 1963. 159 p. (MIRA 17:7)

1. Zaveduyushchiy kabinetom geografii Voronezhskogo instituta usovershenstvovaniye uchiteley (for Deryabina). 2. Geograficheskiy fakul'tet Odesskogo Gosudarstvennogo universiteta (for Kikoin).

L 10824-65 EWT(m)/EPF(c)/EPR/EWP(j)/T Pc-4/Pr-4/Ps-4 RPL/ASD(m)-3 RM/WW

ACCESSION NR: AP4045424 S/0190/64/006/009/1573/1578

AUTHOR: Tyukavkina, N. A.; Kalabina, A. V.; Deryabina, G. I.; Zhikharev, G. T.; Biryukova, A. D.

TITLE: Copolymerization of simple vinyl aryl ethers with vinylidene chloride

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 6, no. 9, 1964, 1573-1578

TOPIC TAGS: copolymerization, vinylidene chloride copolymer, vinyl aryl ether, polyvinyl copolymer, vinylphenyl ether, vinylcresyl ether, benzoylperoxide, diazoisobutyronitrile

ABSTRACT: The effects of the temperature and duration of the reaction, the nature and amount of initiator, and the proportion of individual monomers in the original mixture (10 to 90 mol. %) were examined in a study of the copolymerization of vinylidene chloride with vinyl ethers of phenol and o-, m-, and p-cresols conducted without a solvent at 60 and 90C for 25--100 hrs. in the presence of benzoylperoxide or diazoisobutyronitrile as the initiators. Dry methanol was used to precipitate the copolymers dissolved in benzene, dichloroethane or tetrahydrofuran after polymerization in a sealed ampoule. The composition of the copolymers was determined from the chlorine content after washing the polymers with methanol and drying to constant weight at 30-40C in a vacuum. At 60C the

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L 10824-65

ACCESSION NR: AP4045424

dinitrile proved to be a more effective initiator than benzoylperoxide, increasing polymerization yields as its concentration in the mixture was increased from 0.2 to 1.0 wt. %. An average increase of 7-10% in the yield of copolymers, to a maximum of 62.97%, was achieved by prolonging the reaction from 25 to 100 hrs. Copolymerization constants of 2.37 ± 0.42 and 0.38 ± 0.12 were established for vinylidene chloride and vinylphenyl ether, respectively. The physical and chemical properties of the obtained copolymers, and possible radical and ionic mechanisms of the polymerization, are discussed. Orig. art. has: 3 figures and 1 table.

ASSOCIATION: Irkutskiy gosudarstvenny*y universitet im. A. A. Zhdanova (Irkutsk State University)

SUBMITTED: 01Oct63 ENCL: 00 SUB CODE: OC

NO REF SOV: 000 OTHER: 000

Card 2/2

DERYABINA, I.; TIKHOMIROVA, Zh.; SHINKEVICH, L.

Coordinating conference on the problem of "Labor resources of the U.S.S.R." Biul. nauch. inform.: trud i zar. plata 5 no.4: 34-39 '62. (MIRA 16:1)

(Labor supply—Congresses)

MIRONOV, K.Ye.; DERYABINA, L.D.

Freezing temperatures of aqueous solutions of ethylene glycols. Zhur.prikl.khim. 35 no.6:1338-1342 Je '62. (MIRA 15:7)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR.
(Ethylene glycol) (Gryoscopy)

ZDANOVSKIY, A.B.; DERYABINA, L.D.

Heat of mixing of electrolyte solutions. Part 1. Zhur. fiz. khim. 39 no.3:678-683 Mr '65. (MIRA 18:7)

1. Kazanskiy gosudarstvennyy universitet imeni Ul'yanova-Lenina.

ZDANOVSKIY, A.B.; DERYABINA, L.D.

Heats of mixing of electrolyte solutions. Part 3. Zhur. fiz. khim. 39 no.6:1464-1468 Je '65. (MIRA 18:11)

1. Kazanskiy gosudarstvennyy universitet imeni Ul'yanova-Lenina. Submitted June 18, 1964.

DERYABINA, L.I.

PARKHOMENKO, Vasiliy Georgiyevich; ARKHANGEL'SKIY, N.A., prof., retsenzent; BULGAKOV, N.V., prof., retsenzent; ZAYTSEV, V.G. (Moskva), kand.tekhn. nauk, retsenzent; SHEKLAKOV, D.M. (Moskva), prepodavatel', retsenzent; PISHCHANSKAYA, B.A. (Odessa), prepodavatel', retsenzent; GUTAN, M.K., prepodavatel', retsenzent; GOL'DIN, A.E., prepodavatel', retsenzent; KHRYPOV, N.N. (Sverdlovsk), prepodavatel', retsenzent; DERYABINA, L.I., prepodavatel', retsenzent; YEMEL'YANOV, D.M. (Leningrad), prepodavatel', retsenzent; GONCHAROVA, L.D. (Simferopol'), prepodavatel', retsenzent; MATVEYEV, Ye.P., prepodavatel', retsenzent; ALEKSEYEV, I.M., prepodavatel', retsenzent; DUDINSKIY, S.L. (Leningrad), prepodavatel', retsenzent; BABUN, V.B. (Khar'kov), kand.tekhn.nauk, retsenzent; CHERNOV, N.V., prof., doktor tekhn.nauk, spetsred.; BORISOVA, G.A., red.; SUDAK, D.M., tekhn.red.

[Introduction to the study of commerial wares] Vvedenie v tovarovedenie promyshlennykh tovarov. Moskva, Gos.izd-vo torg.lit-ry, 1959. 135 p. (MIRA 12:7)
(Commercial products)

PARKHOMENKO, Vasiliy Georgiyevich; ARKHANGEL'SKIY, N.A., prof., retsenzent; [deceased]; BULGAKOV, N.V., prof., retsenzent; ZAYTSEV, V.G., retsenzent(Moskva); SHEKLAKOV, D.M., prepodavatel' tekhnikumov sovetskoy torgovli, retsenzent(Moskva); KOZLOVA, Z.V., retsenzent (Moskva); PISHCHENSKAYA, B.A., retsenzent (Odessa); GUTAN, M.K., retsenzent; GOL'DIN, A.E., retsenzent; KHRYPOV, N.N., retsenzent(Sverdlovsk); DERYABINA, L.I., retsenzent; YEMEL'YANOV, D.M., retsenzent (Leningrad); GONCHAROVA, L.D., retsenzent(Simferopol'); MATVEYEV, Ye.P., retsenzent; ALEKSEYEV, I.M., retsenzent; DUDINSKIY, S.L., retsenzent(Leningrad); BABUN, V.B., kand. tekhn. nauk, retsenzent(Khar'kov); CHERNOV, N.V., prof., doktor tekhn. nauk, spets. red.; BORISOVA, G.A., red.; GROMOV, A.S., tekhn. red.

[Introduction to a knowledge of manufactured goods]Vvedenie v tovarovedenie promyshlennykh tovarov. Izd.2., dop. i perer. Moskva, Gostorgizdat, 1962. 142 p. (MIRA 16:1)
(Commercial products)

DERYABINA, M.A.

Technological information and propaganda at enterprises and construction projects of the Yakut Economic Council. Opyt rab. po tekh. inform. i prop. no.1:26-27 '63. (MIRA 16:12)

1. Nachal'nik TSentral'nogo byuro tekhnicheskoy informatsii Yakutskogo soveta narodnogo khozyaystva.

L 31519-66 EWT(1)/ETC(f) IJP(c) AT

ACC NR: AP6008823 SOURCE CODE: UR/0294/66/004/001/0020/0026

AUTHOR: Derevshchikov, V. A. (Moscow); Deryabina, M. A. (Moscow)

ORG: none

56
B

TITLE: Spectroscopic investigation of a pulsed low-voltage, discharge plasma in a vacuum

SOURCE: Teplofizika vysokikh temperatur, v. 4, no. 1, 1966, 20-26

TOPIC TAGS: gas discharge spectroscopy, plasma temperature, gas discharge plasma, plasma research

ABSTRACT: The authors present experimental results of spectroscopic investigations of a pulsed discharge plasma on solid electrodes of a coaxial geometry, with an initial pressure in a vacuum chamber amounting to $10^{-5} - 10^{-6}$ mm Hg. The investigation was conducted in a discharge tube similar to that described by S. V. Gurov et al. (Zh. tekhn. fiziki, 34, 868, 1964). The Ornstein method is used to determine the excitation temperature in various sections of the torch. The distribution of two-fold aluminum ions is investigated according to their excited states. A temperature maximum of the plasma is established with a specific energy in the discharge. A determination is made of the radial distribution of temperature in an anode torch. A rise in temperature is observed with increasing distance from the anode. Orig. art. has: 8 figures and 3 tables.

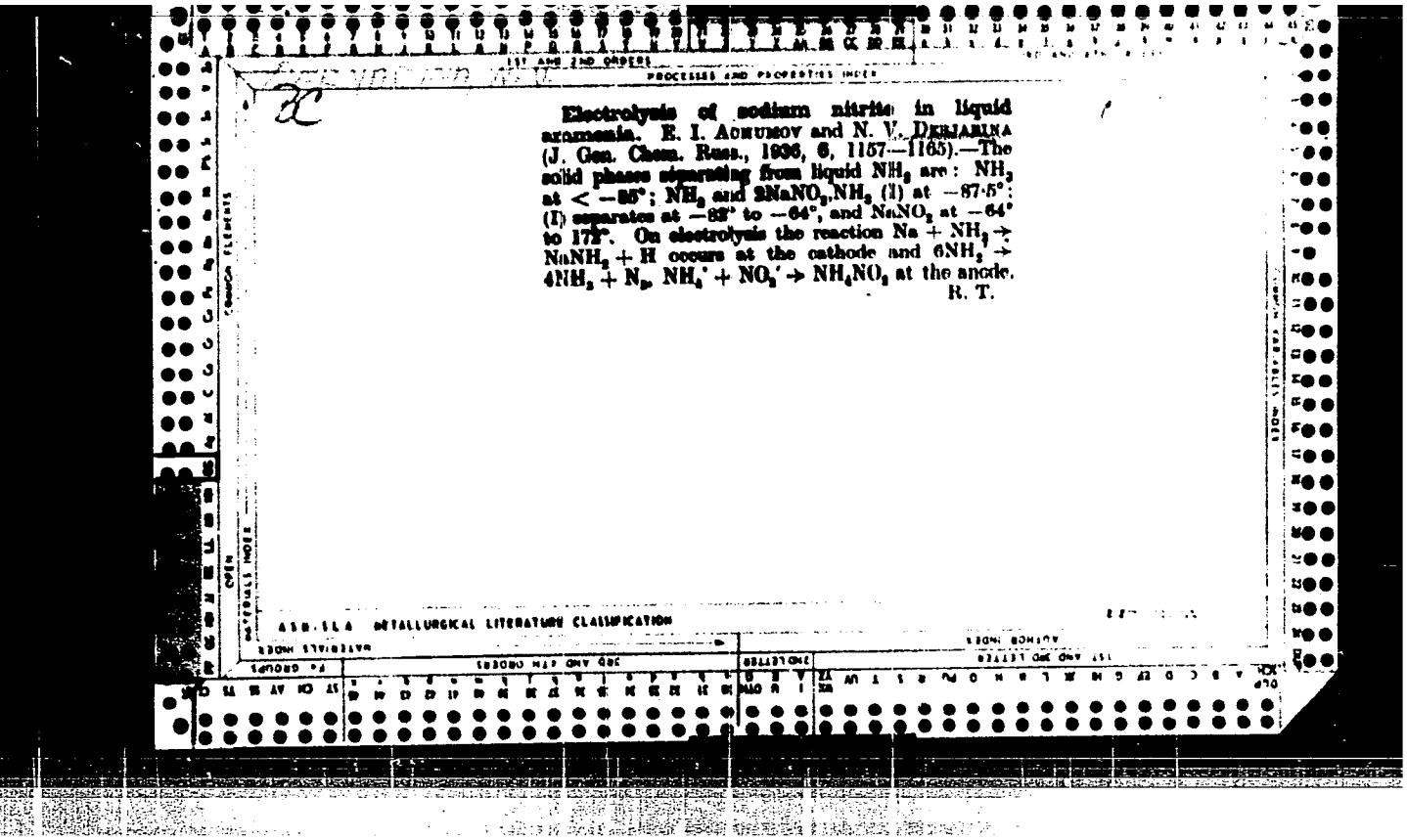
SUB CODE: 20 / SUBM DATE: 20Jan65 / ORIG REF: 003 / OTH REF: 004

Card 1/1 mc UDC 533.915.537.525

ZHUKOV, N.A.; DERYABINA, N.N.

Rapid method for determining the acid numbers of oils in the field. Khim.i tekh.topl.i masel 5 no.12:64-67 D '60.
(MIRA 13:12)

(Lubrication and lubricants) (Acids)



Electrolysis of sodium nitrite in liquid ammonia. R. I. Agrusov and N. V. Denjabina (J. Gen. Chem. Russ., 1936, 6, 1157—1165).—The solid phases separating from liquid NH_3 are: NH_3 at $< -85°$; NH_3 and $2NaNO_2,NH_3$ (I) at $-87{\cdot}5°$; (I) separates at $-83°$ to $-64°$, and $NaNO_2$ at $-64°$ to $172°$. On electrolysis the reaction $Na + NH_3 \rightarrow NaNH_2 + H$ occurs at the cathode and $6NH_3' \rightarrow 4NH_3 + N_2$, $NH_4' + NO_3' \rightarrow NH_4NO_3$ at the anode.

R. T.

DERYABINA, N.V.

Rate of crystallization of calcium sulfate from water solutions of certain salts. N. V. Deryabina and K. P. Mishchenko. *Problemy Kin[illegible] 7. Statist. Vychisleniya Veroyatn. Sistem., Akad. Nauk S.S.S.R.*, 123-30(1949).—The process of the crystn. of gypsum for different values of the initial supersatn. was studied. The solns. were prepd. by means of vol. reactions between solns. of $CaCl_2$ and solns. of Na_2SO_4, K_2SO_4, or $MgSO_4$. The change in the supersatn. with time was detd. analytically. This could also be accomplished by measuring the elec. cond. of the solns., since the decrease in cond. was proportional to the decrease in the $CaSO_4$ concn. in soln. The course of the decrease in the gypsum concn. is fully described by the relation developed theoretically by Roginskii and Todes (*Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1942, 331.—A graphical-analytical method is proposed which makes it possible to det. the duration of the initial period of crystn. and the total time required for this process from the starting value of the supersatn. On the basis of the exptl. data the specific surface energy for $CaSO_4$ crystals was calcd. to be of the order of 10-15 ergs/sq. cm. J. Rovtar Leach

MARKOV, S.S.; VALIKOVA, Ye.V.. Prinimali uchastiye: KOROLEVA, Z.I.; DERYABINA, N.V.. L'YANDE, Yu.V., red.; ZAZUL'SKAYA, V.F., tekhn.red.

[Analytical control of the production in the nitrogen industries, no.12] Analiticheskii kontrol' proizvodstva v azotnoi promyshlennosti. No.12. Moskva, Gos.nauchno-tekhn.izd-vo khim.lit-ry. Pt.2. [Controlling the production of concentrated nitric acid made by direct synthesis] Kontrol' v tsekhe proizvodstva kontsentrirovannoi azotnoi kisloty metodom priamogo sinteza. 1960. 226 p. (MIRA 13:6)

(Nitric acid)

DERYABINA, T. I. Cand Biol Sci -- (diss) "Certain age-related peculiarities of the chemism of the brain." Gor'kiy, 1957. 12 pp (Perm', State Med Inst), 200 copies (KL, 6-58, 100)

BELAVENTSEVA, Galina Nikolayevna; DERYABINA, Tat'yana Nikolayevna;
DEMENT'YEVA, Ye.V., red.; VASIL'YEVA, L.P., tekhn.red.

[Fighters for human health] Bortsy za zdorov'e cheloveka.
Moskva, Gos.tsentr.nauchn.med.biblioteka, 1961. 28 p.
(Besedy o nauchno-populiarnykh knigakh, no.9).
(MIRA 14:4)

(BIBLIOGRAPHY--MEDICINE)

BELAVENTSEVA, G.N.; DERYABINA, T.N.

[Chemistry for medicine; a review of recommended literature] Khimiia v meditsine; rekomendatel'nyi obzor literatury. Moskva, Izd-vo "Kniga," 1965. 23 p. (Novoe v nauke i tekhnike, no.10) (MIRA 18:8)

1. Moskow. Gosudarstvennaya nauchnaya meditsinskaya biblioteka.

BELAVENTSEVA, G.N.; DERYABINA, T.N., red.

[Public health in a rural community; annotated lists of the literature] Sanitarnaia kul'tura sela; annotirovannye spiski literatury. Moskva, Izd-vo "Kniga," 1964. 38 p. (V pomoshch' chitateliu, no.6) (MIRA 17:9)

1. Moscow. Publichnaya biblioteka.

DERYABINA, V.

Methodological section for establishing technical standards attached to an economic council. Sots. trud 6 no.4:120-122 Ap '61. (MIRA 16:7)

1. Rukovoditel' gruppy otdela mashinostroyeniya TSentral'nogo byuro promyshlennykh normativov po trudu.
(Gorkiy—Machinery industry—Production standards)

DERYABINA, V. I.

PHASE I BOOK EXPLOITATION SOV/3752

Metallovedeniye; sbornik statey, No. 3 (Physical Metallurgy; Collection of Articles, No. 3), Leningrad, Sudpromgiz, 1959. 390 p. 3,200 copies printed.

Ed.: G. L. Kapyrin, Candidate of Technical Sciences; Literary and Tech. Ed.: Z. I. Doroshenko.

PURPOSE: This collection of articles is intended for scientific personnel at research and educational institutions and industrial plants and also for advanced students.

COVERAGE: The articles report the results of investigations of 1) the effect of various factors on the susceptibility of constructional and heat-resistant steels and titanium alloys to brittle failure at various temperatures under various conditions of loading (long-time, short-time, cyclic, noncyclic) 2) alloying, structure, and condition of alloys as related to their mechanical properties, and 3) corrosion resistance and evaluation of stainless and heat-resistant steels. The articles are accompanied by numerous Soviet and non-Soviet references. No personalities are mentioned.

GORYUNOVA, N.A.; RADAUTSAN, S.I.; DERYABINA, V.I.

Homogenization of alloys of the system InAs - In_2Se_3 by means of annealing under pressure. Fiz. tver. tela 1 no.3:512-514 Mr '59. (MIRA 12:5)

1. Leningradskiy fiziko-tekhnicheskiy institut AN SSSR.
(Systems (Chemistry))

SOV/129-59-3-5/16

AUTHORS: Kolgatin, N.N., Engineer, Glikman, L.A., Doctor of Technical Sciences, Professor, Teodorovich, V.P., Candidate of Chemical Sciences and Deryabina, V.I., Engineer

TITLE: Sustained Strength of Steels During Investigation of Tubular Specimens Subjected to an Internal Pressure of Hydrogen at Elevated Temperatures (Dlitel'naya prochnost' staley pri ispytanii trubchatykh obraztsov pod vnutrennim davleniyem vodoroda pri vysokikh temperaturakh)

PERIODICAL: Metallovedeniye i Termicheskaya Obrabotka Metallov, 1959, Nr 3, pp 19 - 24 (USSR)

ABSTRACT: A.A. Zakharov (Ref 1) and Sh.N. Kats (Ref 2) have established that in certain calculations of the stresses in tubes subjected to internal pressures by a neutral medium, the sustained strength at elevated temperatures equals the sustained strength in ordinary tensile tests. Therefore, it is possible to use the results of sustained tensile tests for calculating the permissible stresses. In a number of cases, the permissible stresses can be chosen correctly only by taking into consideration the

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Sustained Strength of Steels During Investigation of Tubular Specimens Subjected to an Internal Pressure of Hydrogen at Elevated Temperatures

influence of the aggressive media which produce the internal pressures inside the tubes at the particular elevated temperatures. Of such aggressive media, hydrogen is of considerable importance. The authors of this paper have produced a test rig and evolved a method of testing for sustained failure of tubular specimens which are subjected to internal pressure of various media at elevated temperatures. This test rig has been described in earlier work of some of the authors of this paper (Ref 3). In the here described work it was applied for studying the sustained strength of tubular specimens of various steels subjected to internal pressure of hydrogen and nitrogen at elevated temperatures. As a neutral medium, molecular nitrogen was chosen which enabled evaluating the influence of hydrogen on the sustained strength of the tubes. The chemical compositions and the mechanical properties of the investigated (8) steels are entered in Tables 1

 and 2. In addition to these, steel containing 6% Cr

Sustained Strength of Steels During Investigation of Tubular Specimens Subjected to an Internal Pressure of Hydrogen at Elevated Temperatures

and supplementary additions of W, V, Mo and Nb was studied. Of the eight materials enumerated in Table 1, the tests on commercial iron were carried out at 450 °C and the respective results are graphed in Figure 1. A sharp drop in the sustained strength was observed for tubular specimens subjected to internal pressure of hydrogen; brittle failure with a pronounced intercrystallite character was observed, whilst in equal specimens subjected to internal pressure with nitrogen the failure was accompanied by appreciable plastic deformation and the failure was intracrystalline. The results for the other materials tested are also graphed. On the basis of the measured strength data for sustained loading for durations of 1 000 and 10 000 hours, it can be concluded that hydrogen has a considerable influence on the reduction of the sustained strength, particularly in the case of commercial iron and steel 20; at 450 °C these materials suffered a loss of 75 to 85% of their sustained strength. For low- and medium-alloy steels

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the drop in sustained strength was lower, amounting to 22 to 40% at 600 °C. Of the investigated low- and medium-alloy steels, the Soviet steel EI579 had the highest sustained strength at 600 °C, when subjected to hydrogen and nitrogen under pressure. An interesting feature of the results was that for this steel the sustained strength dropped with increasing wall thickness of the tubular specimens and this is attributed not only to the influence of/the factor and surface defects but also to the more intensive influence of hydrogen as a result of the higher pressures which were applied to the thick-walled tubes (400 to 500 kg/cm^2 for wall thicknesses of 1.5-2 mm and 600 to 900 kg/cm^2 for wall thicknesses of 7 mm). The drop in sustained strength during loading by hydrogen under pressure at 600 °C was much lower (7-9% and 10-20%, respectively) for the high-alloy steels Kh12VMF and 1Kh18N9T. It can be considered an established fact that a drop in the

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sustained strength as a result of loading with hydrogen under pressure at elevated temperatures and pressures is caused basically by gradual "loosening" of the grain boundaries and weakening of the bonds between the crystallites which determine the sustained strength.
There are 10 figures, 2 tables and 3 Soviet references.

ASSOCIATION: Leningradskiy nauchno-issledovatel'skiy institut po pererabotke nefti i polucheniyu iskusstvennogo zhidkogo topliva (Leningrad Scientific Research Institute on Petroleum Refining and on the Production of Synthetic Liquid Fuels)

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